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RESEARCH ARTICLE

Substance Use and Associated Factors Among in-school Adolescents in South Africa

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Abstract:

Background:

Substance use is a significant public health problem worldwide and adversely affects the education system because learners who use substances display behaviours that negatively influence the quality of learning and teaching. The study aimed to determine the educator's knowledge of the factors contributing to substance use among secondary school learners in the Greater Giyani municipality.

Methods:

The study employed a descriptive research design, and purposive sampling was applied to select the participants. Data was collected using a structured questionnaire, and data analysis was conducted using the Statistical Package for Social Sciences (SPSS) version 25 programme.

Results:

The findings show good financial background (69%), more pocket money (67%), high financial difficulties (67%), availability and accessibility of substances (51%), and psychological factors (low self-esteem, depression, and post-traumatic stress disorder) as contributing to learners' involvement in substance use.

Conclusion:

Substance use is a matter of serious concern in secondary schools, and several factors are believed to be perpetuating the behaviour. The government should put strict measures in place to ensure the appropriate use of marijuana and for the purpose indicated. Teachers' inadequate knowledge of contributory factors to substance use by learners could mean that they could not educate them about substance-related harm.

Keywords: Adolescents, Educators, Factors, Knowledge, Narcotics, Alcohol.

Article History

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1. BACKGROUND

The use of alcohol and drugs by learners is a major public health problem internationally. Substance use among public secondary school learners is increasing rapidly and with negative consequences such as school dropouts, injuries, loss of lives, destruction of properties, and compromised academic standards [1]. Educators in schools face the challenges of learner's misconduct and assume that this abnormal behaviour results from the use of substances by these learners.

Some studies identified the significant risk factors for substance use among the youth as poverty, lack of parents' in-

volvement in the education of the child, drug abuse by parents and friends, and conflict in family relationships [2 - 4]. In contrast, Vaughan *et al.* [5] identified parental alcoholism, parental divorce, and death before the child reaches 18 years of age to increase the likelihood of substance abuse by the youth. Furthermore, Mothibi [6] found an association between substance use and criminal behaviour.

Substance use among learners is increasing at a rapid rate in schools. Research shows about 190 million substance users globally, resulting in around 40 million serious illnesses or injuries reported each year. In the first South African national youth survey conducted among grade 8-11 learners, the prevalence rate was 31.8% for alcohol, 23% for binge drinking, and 9.1% for cannabis use [7]. Similarly, a study conducted by

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Peltzer and Phaswana Mafuya [8] found that the past 3-months of substance use among 15 years and older was 4.4%, which was higher than the 2008 national survey. Several factors contribute to learners' involvement in substance use.

Socioeconomic status has a significant role in learners' involvement in substance use. Adolescents from a low socioeconomic background are more likely to engage in substance use. However, adolescents from a high socioeconomic background are also at risk for substance use, particularly binge drinking, including home-brewed beer, due to their affordability [2]. Furthermore, adolescents from low socioeconomic status or families with little resources are more likely to smoke cheaper cigarettes [2].

Historically, substance use is common in young people. However, the only difference today is the increased availability of substances and the decrease in age of initiation. Many learners start using substances in the early years of their lives due to their accessibility. Society or community plays a significant role in learners' involvement in substances. Communities make legal and illegal substances more accessible, and as a result, learners are more likely to use them. Public drinking by others also contributes to the learner's engagement in substance use. When learners see their elders drinking in public, they tend to be curious and experiment. Some studies found that the majority of the school principals and educators agreed that substances are readily available and accessible within the school environment, making it easy for learners to access them [9, 10].

The way in which children or learners, in particular, are exposed to alcohol includes advertising and ownership of alcohol promotional items, for example, hats, t-shirts, mugs, among others, with an alcohol brand printed on the item making it popular and increasing the risk of children engaging in alcohol use. Research further indicates that learners get involved in substance use as a result of peer influence and poor academic performance [11]. Furthermore, when substance use is highlighted and glorified through publications, televisions, radios, electronic media, and online, drug dealers and users often find opportunities to discover the latest sources of the drugs. Research shows that the school principals (62.5%) and educators believe that mass media plays a significant role in learners' involvement in substance use [10]. Studies on substance use among secondary school learners have been conducted among adolescents, but few, if any, on educators. The purpose of the study was to determine educators' knowledge of factors associated with substance use among learners.

2. METHODS

2.1. Design

The study was a descriptive-cross-sectional survey conducted among secondary school teachers using a questionnaire. It was modified and distributed among study participants. Two hundred and twenty-four participants completed the questionnaire, which was validated.

2.2. The Measuring Instrument

Data was collected utilising a structured questionnaire comprised of closed-ended questions. The questionnaire was developed in English and not translated to any other language because the participants were qualified educators, and the researcher believed that they were familiar with the English language. The questionnaire had three sections: demographic details, socioeconomic and psychological factors related to substance use by learners. It was developed through the material available in literature reviews. The instrument was pre-tested among educators with the same characteristics as those included in the study to ensure content and face validity and identify any gaps that needed to be eliminated.

2.3. Data Collection

Data was collected using a self-administered questionnaire in English, which included only closed-ended questions. Questionnaires included the biographical data and factors related to substance use by learners. The participants were visited in their respective workplaces (schools) in order to distribute the questionnaire to all who consented to participate for completion. The duration for completion of the questionnaires ranged from 25-30 minutes.

2.4. Data Analysis

Data were analysed using the SPSS version no 25, and frequency analyses were conducted to describe the demographic characteristics of the sample. The Chi-square test was used to compare categorical variables. Agree and strongly agree were combined under agree, disagree, and strongly disagree under disagree.

2.5. Ethical Considerations

The ethical clearance was obtained from the University of Venda Ethics Committee (Project no: SHS/17/PH/11/1408). The permission to conduct the study was obtained from the provincial Department of Education, Mopani District Department of Education, and the principals of these schools. The participants gave written consent after a detailed explanation of the aim of the study. Participants were informed about their rights before they gave their consent. They were also assured that any information shared will not be made available, and the raw data and their identities will be protected when writing the report and manuscripts for publication. Participants were informed that they could discontinue at any given stage of the interview if they felt uncomfortable without any penalty.

3. RESULTS

3.1. Demographic Characteristics of the Sample

The sample consisted of 224 participants (211 educators and 13 school principals). 58.5% (131) of the respondents were aged 40 years and above while 12.5% (28) were between 20-25 years, and the age groups 26-30 years and 31-35 years were represented by 10.3% (23) and 10.7% (24), respectively. The lowest represented age group was 36-40 years, which was 8.0% (18). The findings show that majority of the respondents,

57.1% (128), were male educators, whereas 42.9% (96) were female educators. Of the total sample, 95.1% (213) were from public schools, while 4.9% (11) were from private schools. 54% (121) of the respondents were graduates. The majority of the participants, 74.5% (167), had more than five years of teaching experience, while 25.4% (57) had less than five years of teaching experience.

3.2. The Socioeconomic Factors Contributing to Substance Use among Learners

This section included four items to assess secondary school teachers' knowledge of socioeconomic factors contributing to substance use by learners (Table 1). All items used a 4-point scale (agree, strongly agree, disagree, strongly disagree). Agree and strongly agree were combined under agree while disagree and strongly disagree under disagree. More than half, *i.e.*, 51% (116) of the respondents, agreed that substances are easily accessible and available to learners, whereas 49% (108) disagreed. Furthermore, the findings show that 67% (150) of the respondents agreed, while 33% (74) disagreed that great financial difficulties contributed to substance use among learners. Moreover, the findings demonstrated that 69% (154) of the respondents agree that a good financial background contributes to learners' involvement in substance use, while 31% (70) did not agree. Finally, the findings show that 67% (150) of the respondents agree, whereas 33% (74) disagree that more pocket money may influence learners to engage in substance use (Table 1).

3.3. The Psychological Factors Contributing to Substance Use among Learners

3.3.1. Low Self-esteem

The findings indicated that 90% (201) of the respondents agree that low self-esteem contributes to the learners' involvement in substance use. Furthermore, results indicate that low self-esteem is another factor adding to learners' participation in substance use.

3.3.2. Poor Self-control

Most of the respondents, *i.e.*, 87% (196), agreed that poor self-control adds to learners' involvement in substance use. Only a small number, *i.e.*, 13% (28) of the respondents, disagreed that poor self-control contributes to substance use. Based on these findings, poor self-control does contribute to learners' involvement in substance use.

3.3.3. Depression

With regard to depression, most respondents, *i.e.*, 77%

(172), agreed that depression is a factor contributing to learners' involvement in substance use. However, only a small number, 23% (52), disagreed with the statement.

Table 1. The socioeconomic factors contributing to substance use among learners.

Item	Response	Frequency (f)	Percent (%)
Availability and accessibility of substances	Agree	75	33
	Strongly agree	41	18
	Disagree	64	29
	Strongly disagree	44	20
High financial difficulties	Agree	107	48
	Strongly agree	43	19
	Disagree	54	24
	Strongly disagree	20	9
More pocket money	Agree	101	45
	Strongly agree	49	22
	Disagree	61	27
	Strongly disagree	13	6
Good financial background	Agree	115	51
	Strongly agree	39	18
	Disagree	49	22
	Strongly disagree	21	9
Total		n=224	100

3.3.4. Post-traumatic Stress Disorder

The findings show that 67% (149) of the respondents agreed that post-traumatic stress disorder contributes to learners' involvement in substance use. However, 33% (75) disagreed with this assertion.

3.4. Association between Demographic Factors and Knowledge of the Psychological Factors Contributing to Substance Use

Table 2 below indicates respondents in the age group 41 years and above, of which 52.6% agreed more than the respondents of other age groups that psychological factors contribute to substance abuse. The relationship between age and knowledge of psychological factors contributing to substance abuse was statistically significant (p-value<0.01). Furthermore, the table indicates that there was no statistically significant relationship between gender and knowledge of factors contributing to substance abuse (p-value>0.05), although males (25%) disagreed more than females (17.7%) that psychological factors contribute to substance use.

Table 2. Association between demographical factors and knowledge of the psychological factors contributing to substance use.

Variables	Knowledge of the Psychological Factors Contributing to Substance Use					P-value
	Agree	Strongly Agree	Disagree	Strongly Disagree	Total	
	f (%)	f (%)	f (%)	f (%)	f (%)	
	Age	-	-	-	-	
20-25	3 (10.7)	10 (35.7)	15 (53.5)	0 (0)	28 (100)	0.00*
26-30	7 (29.1)	4 (16.6)	5 (20.8)	8 (33.3)	24 (100)	-
31-35	9 (39.1)	0 (0)	5 (21.7)	9 (39.1)	23 (100)	-
36-40	8 (44.4)	0 (0)	3 (16.6)	7 (38.8)	18 (100)	-

(Table 2) *contd.....*

Variables	Knowledge of the Psychological Factors Contributing to Substance Use					P-value
	Agree	Strongly Agree	Disagree	Strongly Disagree	Total	
	f (%)	f (%)	f (%)	f (%)	f (%)	
Age	-	-	-	-	-	-
41 and above	69 (52.6)	39 (29.7)	21 (16)	2 (1.5)	131(100)	-
Gender	-	-	-	-	-	-
Male	52 (40.6)	29 (22.6)	32 (25)	15 (11.7)	128 (100)	0.613
Female	44 (45.8)	24 (25)	17 (17.7)	11 (11.4)	96 (100)	-
Qualification	-	-	-	-	-	-
Certificate	6 (100)	0 (0)	0 (0)	0 (0)	6 (100)	0.095
Diploma	43 (44.3)	23 (23.7)	23 (23.7)	8 (0.8)	97 (100)	-
Degree	47 (38.8)	30 (24.7)	26 (21.4)	18(14.8)	121(100)	-
Position	-	-	-	-	-	-
Educator	89 (42.1)	48 (22.7)	48 (22.7)	26 (12.3)	211 (100)	0.209
Principal	7 (53.8)	5 (38.4)	1 (7.6)	0 (0)	13 (100)	-

All respondents (100%) with certificates agreed more than those with diplomas and degrees that psychological factors contribute to substance abuse. However, the relationship between qualification and knowledge of psychological factors was not statistically significant (p -value >0.05). The table also indicates that most of the respondents who are school principals (53.8%) agreed more than those who were educators (42.1). However, the relationship between the position held by respondents in the schools and knowledge of psychological factors contributing to substance abuse was not statistically significant (p -value >0.05).

4. DISCUSSION

The present study shows that the majority of the respondents were 40 years old and above (58.5%), and most of them were males (57.1%). This agrees with a previous study that found more male educators than females participated in their studies [7]. The majority of the respondents were from public schools (95.1%) since few private schools exist in the area. Furthermore, more than half (54%) of the educators had a bachelor's degree, and 37.7% had more than 20 years of teaching experience. The findings demonstrate that substances are easily accessible and available to learners because both the educators and the school principals (51%) collectively agreed. Accessibility and availability of alcohol and drugs to learners, be it at home or school, increase their chances of being substances users. Alcohol can be accessible at home due to parents who drink openly and keep some in their refrigerators. This corresponds with previous research [2, 10, 12], which found that teachers agreed that the substances are easily available and accessible within the school environment. Furthermore, 87.5% of the school principals also agreed that substances are available within the school environment, making it easy for learners to use them. Therefore, based on the findings, it can be argued that the school environment can be classified as a risk factor for substance use by learners [12, 13]. With the legalisation of marijuana use in South Africa, one of the substances most used by learners or beginners [14, 15], educators could expect an increased number of learners who will use substances openly within the school environment. This may negatively impact the education system.

The study shows that most of the respondents (67%) agree

that high financial difficulties and poverty influence learners' involvement in substance use. The findings concur with previous studies [16, 17], which found that individuals with above-average financial difficulties are more likely to engage in substance use. Learners with significant financial difficulties are more likely to use inhalants and tobacco because they are affordable and easily accessible. These learners are also more likely to receive less pocket money than those from good financial backgrounds, which could be the reason for using cheaper substances.

Furthermore, the findings show that 67% of respondents agreed that learners who receive more pocket money are also more likely to use expensive substances. Such learners are from families with good financial backgrounds. The findings are in line with previous research, that found an association between more pocket money with ease of acquisition of drugs. More pocket money in the hands of learners may result in it being used to access drugs or substances, which is in line with previous findings that indicated increased pocket money as a risk factor for substance use. Students who get access to much money are more likely to be tempted to buy drugs or alcohol [18, 19].

The study results show that low self-esteem and poor self-control were perceived as the psychological factors contributing to substance use among learners; 68% of the educators agreed, and 22% strongly agreed that low self-esteem contributes to the learners' involvement in substance. Similarly, 54% of educators agreed, and 33% strongly agreed that poor self-control is a factor contributing to learners' involvement in substance use. These findings concur with studies that established that individuals with low self-esteem and life satisfaction were more likely to engage in substance use [20, 21]. Furthermore, learners with low self-esteem may engage in substance use to rationalise their poor academic performance or improve positive feelings of self-worth.

In the current study, depression was perceived to contribute to learners' involvement in substance use. About 49% of the educators agreed, while 28% strongly agreed that depression contributes to learners' involvement in substance use. In contrast, Wasil *et al.* [22] found few associations between substance use and depression, while Hussong *et al.*

[23] found that substance use varies based on the context and sample. Similarly, Rappeneau and Berod [24], in their review of evaluating depression as a risk factor for substance use disorders, concluded that to make any definite conclusions regarding depression as a risk factor for drug use, substantial research is required.

Participants regard post-traumatic stress disorder to contribute to substance use. The findings show that 65% of the respondents agreed with this statement, while 40.6% of the educators reported that low self-esteem was the primary factor contributing to substance use among learners. The findings are in line with the study by Basedow *et al.* [25], which found high substance use among adolescents with Post-Traumatic Stress Disorder.

5. LIMITATION

The study sample was limited to one district, and the findings cannot be considered to represent the broader section of the teachers in the Limpopo province.

6. RECOMMENDATIONS

Based on the findings of the study, the following recommendations are proposed. The government, in particular, the Department of Education (DoE), should conduct workshops to empower educators with knowledge on how to deal with substance use by learners. The DoE can also employ specialists in substance abuse to work with educators to ensure that the problem is dealt with appropriately to create school environments free of substance use. The DoE should develop policies aimed at dealing with substance use in schools and ensure their effective implementation across all schools. Collaboration among departments is crucial to empower educators and curb substance use in schools through awareness campaigns. Instead of the media displaying only beneficial advertisements concerning alcohol, it must also provide education and awareness about substance use and its consequences. Further research should be conducted on the learners and parents.

CONCLUSION

The study attempted to determine the educators' knowledge of factors contributing to substance use among learners. Socioeconomic and psychological factors were reported to contribute to substance use among secondary school learners. Due to the recent legalisation of some substances like marijuana, the government should enforce strict measures to ensure it is used appropriately and for the purpose indicated. Substance use among public secondary school learners requires attention, and if not dealt with appropriately, it could destroy the future of our society's youth.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

The ethical clearance was obtained from the Ethics Research Committee of the University of Venda, South Africa (Project no. SHS/17/PH/11/1408)

HUMAN AND ANIMAL RIGHTS

No animals were used in this research. All human research procedures followed were in accordance with the ethical standards of the committee responsible for human experimentation (institutional and national), and with the Helsinki Declaration of 1975, as revised in 2013.

CONSENT FOR PUBLICATION

Informed consent was obtained from all participants in the study.

AVAILABILITY OF DATA AND MATERIALS

The data used to support the findings of this study are available from the corresponding author [A.K.] upon request.

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None.

CONFLICT OF INTEREST

The authors declare no conflict of interest, financial or otherwise.

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